

## ABSTRACT OF THE DISCLOSURE

A millimeter wave (MMW) antenna array includes a continuous transverse stub (CTS) radiating aperture comprising a set of spaced continuous transverse stubs, each having a longitudinal extent. A series feed system is coupled to an excitation source for exciting the stubs with MMW electromagnetic energy having a linear phase progression along the longitudinal extent of the stubs to produce an array beam which can be scanned over a beam scan range by changing the excitation frequency.